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sequentially transmitting the plurality of processed signals through a coupled antenna array, generating a desired radiation level at a number of locations within a desired sector.

41. (Amended) A method according to claim 40, wherein the signal is transmitted using a CDMA protocol.

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43. (Amended) A method according to claim 40, wherein the desired sector is comprised of a range of azimuths up to a complete range of azimuths of the antenna array.

44. (Amended) A method according to claim 40, further comprising developing a plurality of signal processing procedures comprising:

selecting a weight vector from a sequence of different weight vectors, wherein elements of the weight vectors selectively modify one or more characteristics of transmission of the signal from each antenna in the antenna array.

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50. (Amended) A method according to claim 45, wherein the sequence of weight vectors is comprised of weight vectors designed to provide a desirable radiation pattern within at least a sub-sector of the desired sector.

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52. (Amended) A method according to claim 50, wherein the desired sector is the whole range in azimuth.

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53. (Amended) A method according to claim 45, wherein the sequence of weight vectors includes weight vectors that are representative of weight vectors designed for transmission to known communication unit(s).

54. (Amended) A method according to claim 53, wherein the weight vectors designed for transmission to known communication unit(s) are determined from spatial signature(s) associated with each of the communication unit(s).

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57. (Amended) A method according to claim 40, wherein the plurality of signal processing procedures is commensurate with the plurality of antennae within the antenna array used to sequentially transmit the plurality of processed signals.

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60. (Amended) A subscriber unit comprising:  
two or more antenna configured as an antenna array; and  
processing element(s), coupled with the antenna array, to iteratively process a signal through a plurality of signal processing procedures to generate a plurality of processed signals which, when sequentially transmitted via the antenna array, generate a desired radiation level at a number of locations within a desired sector.

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62. (Amended) A subscriber unit according to claim 60, further comprising:  
a transceiver, coupled with the antenna array and the processor element(s), to sequentially transmit each of the generated plurality of processed signals to achieve the desired radiation level at a number of locations in the desired sector during at least one of said sequential transmissions,

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wherein sequential transmission of the generated plurality of processed signals comprises a broadcast transmission.

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B<sup>8</sup> 78. (Amended) A communication station comprising:  
two or more antenna configured as an antenna array; and  
processing element(s), coupled with the antenna array, to iteratively process a signal through a plurality of signal processing procedures to generate a plurality of processed signals which, when sequentially transmitted via the antenna array, generate a desired radiation level at a number of locations within a desired sector.

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B<sup>9</sup> 80. (Amended) A communication station according to claim 78, further comprising:  
one or more transceivers, coupled with the antenna array and the processor element(s), to sequentially transmit each of the generated plurality of processed signals to achieve the desired radiation level at a number of locations in the desired sector during at least one of said sequential transmissions, wherein sequential transmission of the generated plurality of processed signals comprises a broadcast transmission.

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Please add the following new claims:

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B<sup>10</sup> 95. (New) A method according to claim 53 wherein the communication unit(s) is at least one of a subscriber unit and a base station.

96. (New) A subscriber unit according to claim 60 wherein the signal is transmitted using a CDMA protocol.